

Orthoptera-Saltatoria species observed in Egypt and Jordan between 2001 and 2006

Joost Willemse

Abstract

During a five year period (2001-2006) my father and I collected Orthoptera in Egypt. Some collecting was also done in Jordan during a short stay. Most of the collecting in Egypt was done in the Cairo area and the Nile Delta but specimens from all major oases were also collected. Some interesting discoveries, mainly concerning *Catantops axillaris axillaris* and *Duroniella cooperi*, were made. All the results are included in the article, along with a map of localities.

Zusammenfassung

Über fünf Jahre hinweg (2001-2006) sammelte der Autor gemeinsam mit seinem Vater in Ägypten Heuschrecken. Ein kurzer Sammelaufenthalt fand außerdem in Jordanien statt. In Ägypten konzentrierten sich die Aufsammlungen auf das Umfeld von Kairo, das Nil-Delta und auf alle größeren Oasen. Es gelangen einige interessante Entdeckungen, insbesondere von *Catantops axillaris axillaris* und *Duroniella cooperi*. Die Ergebnisse dieser Sammelreisen werden im vorliegenden Beitrag mit Fundortkarte vorgestellt.

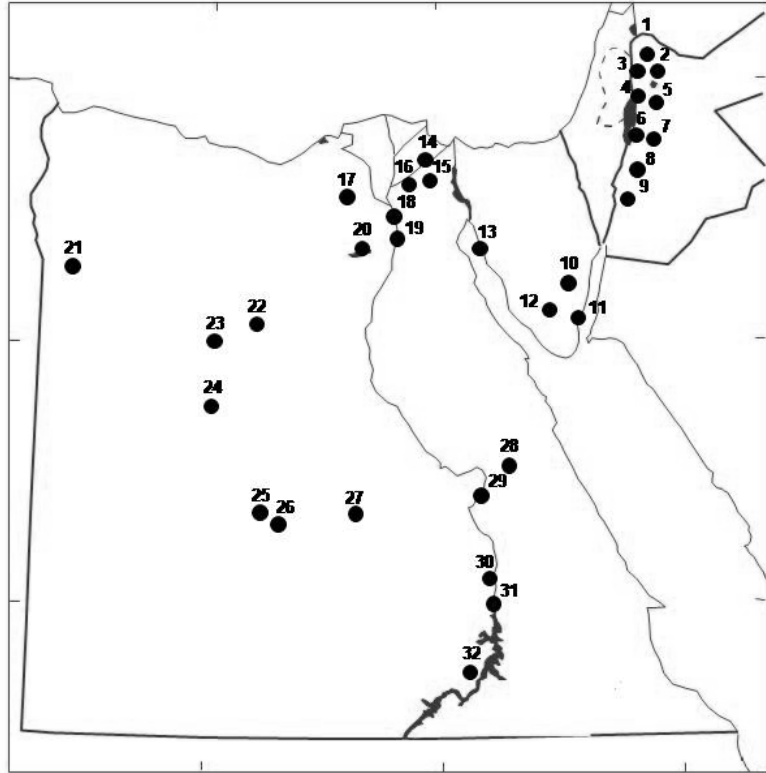
Introduction

The Orthoptera fauna of the Middle East in general, and Egypt and Jordan in particular is relatively badly known. Although in recent years the study of the Orthoptera of Egypt and Jordan received some more attention again (ABDEL-DAYEM 2005, KAFBEH-BADER 2001, KAFBEH-BADER & MASSA 2001, HAGGAG 2004) in general publications are few, scattered and often very old. Therefore when I moved with my family to Egypt this was considered a unique opportunity to try and increase the existing knowledge of Orthoptera. Over a five-year-period (2001-2006) my father Manuel Willemse and I traveled to various locations in order to collect specimens. Most trips were made to localities in the direct vicinity of Cairo, some to localities further away like the Sinai, Siwa Oasis, Bahariya Oasis, and the south. During these five years, one holiday was spent in Jordan and the opportunity to collect there was gladly taken. Altogether the collection trips resulted in a collection of slightly more than 40 species collected in almost 50 locations including some interesting discoveries.

Methods

The specimens on which the data is based were killed on location and preserved dry. Coordinates and elevation were recorded with a hand-held GPS. For most localities coordinates were noted down as degrees, minutes, seconds for some as degrees, decimal minutes. All specimens are currently deposited as part of the collection of Fer Willemsse (Eygelshoven, the Netherlands) which at the moment is a private collection but will become a public one in the future.

Below a list of localities is presented, with coordinates (if available), collection date and a brief indication of the habitat. For the convenience of the reader a map is presented including all localities.



Jordan

- 1a. Jerash, Temples of Jerash (ruins), 26/10/2003, bit of grass.
- 1b. Burma - Jerash, near Jamla (Nature Reserve Park Dibbeen), 26/10/2003, border of road, grass (not eaten by goats), stones and spiky bushes.
- 1c. Jerash, Hotel Olive Branch, 934 m [N 32°17'45.9" E 35° 51'18.6"], 25/10/2003, olive trees, grass.
2. North of Amman, 214 m, [N 32° 16'30.4" E 35° 39'48.3"], 27/10/2003, green area, border of the desert, irrigation canal.
3. Rahmmy, 700 m [N 32° 09'09.9" E 35° 52' 25.5"], 25/10/2003, stony slope, spiky bushes, dead grass.
4. North of Dhiban, 620 m, [N 31° 32' 35.4" E 35° 46' 34.4"], 31/10/.2003, stony plateaus, bushes, grass.
5. Madaba, 31/10/2003 in the city bushes.
6. Dead Sea -344 m (-!).[N 31° 32'14.3" E 35° 33' 36.5'], 28/10/2003, road border with grass and bushes.
7. North of Ariha, 350 m, [N 31° 26'40.6" E 35° 47'45.1"], 31/10/.2003, border of the road, grass, thorny bushes.
8. Petra-Karak, near national park, 1389 m, [N 30°42'00.2" E 36° 34' 50.5"], 30/10/.2003, stony ground, thorn bushes, dry grass.
9. Petra, Golden Tulp Hotel, 1311 m, [N 30°19'26.9" E 35° 29' 49.3"], 30/10/2003,

Egypt

- 10a. Sinai, camp 1, 790 m, [N 28°46.766' E 34°20.387'] 31/03/2005 wadi with bushes.
- 10b. Sinai spring "Bir Safra"; 690 m, [N 28°45.442' E 34°20.712'], 01/04/2005, solitary tree.
- 10c. Sinai, Wadi Gebi, 569 m, [N 28°48.888' E 34° 26.242'], 01/04/2005, gorge, water, bushes.
- 11. Sinai, Râs Abu Galûm, 01/11/2001.
- 12a. Sinai, Catherina monastery (hotel), 1400 m, 30/03/2005, bushes on slope.
- 12b. Sinai, Catherina monastery, 1550 m, [N28°34'08.7" E 33°57'22.7"], 03/05/2002.
- 12c. Sinai, Catherina monastery, 830 m, [N28° 49'16.2" E 34° 17'26.9"], 04/05/2002.
- 13. Sinai, Hotel Moonbeach, hall of the hotel, 13/09/2002.
- 14a. Nile-Delta, Cat temple close to Zagarig (Fall El Bastah), 10 m, [N 30°34'26.2" E 31° 30' 45.3"], 27/09/2003.
- 14b. Kufur el Cyid (Bilbeis), 10 m, [N 30°28'09.2" E 31°32'38.7"], 27/09/2003, rice field.
- 15. Nile-Delta, 10 Ramadan city, 123 m, [N 30°17'07.2" E 31°41'17.1"], 05/09/2003, desert, grass close to irrigated area banana trees.
- 16. Nile-Delta, 3 km N of Bilbeis, 15 m, [N 30° 25'47.5" E 30° 35'29.4"], 05/0/2003, mango and lemon trees, grass, close to a canal.
- 17. Wadi Natrun, ± 80 km NW of Cairo, 26/02/2004.
- 18a. Cairo-City, Kattameya (Golf resort), [N 30° 00'06.9" E 31°24'28.3"], 07/09/2002, 05/10/2002-20/10/03, grass plain.
- 18b. Cairo, Maadi, 15/12/2002, little bushes along the road.
- 18c. Sakkara country Club (S of Cairo), 28/09/2001, 07/07/2002, 30/08/2002; 21/09/2002, 29/09/2002, 29/09/2003, 25/06/2004, 25/07/2004, 01/10/2005, grass, border of the desert.
- 18d. Heliopolis Cairo, garden, 10/2001 Manuel Willemse. 19. Nile (S of Cairo), 5 km N of El Saff, [N 29° 37'29" E 31°17'58.3"], 02/2002, reeds, along river.
- 20. Western Desert, Fayoum, Abu Liva, 28/02/2004.
- 21a. Siwa Oasis, Hotel Desert Rose, -17 m, [N 29°10.695'E 25° 29.464'], 31/01/2004, cultivated area of hotel.
- 21b. Siwa Oasis, -17 m, [N 29°11.942' E 25° 30.210'], 02/02/2004, along the road, olive & palm trees, grass.
- 21c. Siwa Oasis, Amoun Temple, -32 m, [N 29°12.007' E 25° 32.766'], 01/02/2004, palm forest, thorny bushes, grass.
- 21d. Siwa Oasis, Fatmas Island, 02/02/2004, palm forest high grass, water.
- 21e. El Bahrein (North West) (South of Siwa Oasis) -42 m (!), [N 29°37'36.4" E 29°30'06.7], 22/02/2002.
- 22a. Bahariya Oasis, Hotel, [N 28°21'19.0" E 28° 52'59.7"], 24-25/10/2001 & 3-5/10/2003, hotel garden, grass, roses and trees.
- 22b. Bahariya Oasis, along the lake, 139 m, [N 28°22'01.2" E 28°52'53.9"], 5/12/2002, abundant vegetation, moist soil.
- 22c. Bahariya Oasis, Bagharia Hotel, 05/03/2004, hotel ground.
- 22d. Bahariya Oasis, [N28°25.619' E 28°56.150'], 21/01/2005, rice field with dry verge.
- 22e. Bahariya Oasis, farm close to hotel, 04/10/2003

- 22f. Bahariya Oasis, 70 m [N 28° 24'05.0" E 28°52'33.2"], 04/10/2003, rice field, palm, trees, humid.
23. Western desert, 24 m, [N 27°22'51.3" E 28°14'09.3"], 27/11/2003, dry oasis, salt, crust (sabkha) ground.
24. Farafra Oasis, 03/01/2004, salt crust (sabkha) and reeds.
- 25a. Dakhla Oasis, Budkhudu 04/01/2004, street-border with bits of grass.
- 25b. Dakhla Oasis, 123 m, [N 25° 30'25.9" E 28° 57'42.5"], 04/01/2004, rice field with grass.
- 25c. Dakhla Oasis, [N 25°42.175' E 28°53.924'], 22/03/2005, road verge, irrigation, dry.
26. 5 km S of Tineida, 113 m, [N 25° 27'49" E 29° 20'53.3"], 04/01/2004, border of cultivated, irrigated area with medium high vegetation.
27. Kharga Oasis (Hibis temple), 05/01/2004, border of oasis, grass and spiky bushes.
28. Luxor - Hurharda, restaurant along the road for Luxor to Hurharda, 08/01/2004, mountain valley, a bit of grass.
- 29a. Close to Luxor, [N 25° 43'12.3" E 32° 36'40"], 07/01/2004, ruins, thorny bushes.
- 29b. Luxor, Crocodile island (Hotel Mövenpick), 67 m, [N 25° 40'03.6" E 32°37'14.5"], 06/01/2004, rice fields, citrus trees.
30. Philne temple (island North of Aswan), 06/01/2003, poor vegetation.
31. Aswan, Hotel Old Cataract, 07/01/2003, hotel garden swimming pool.
32. Abu Simbel Temple, dry vegetation, 07/01/03.

Results

Tettigoniidae

Phaneropterinae

Phaneroptera sparsa Stål: 1c

Tylopsis lilifolia Fabricius: 22a

Conocephalinae

Conocephalus concolor Burmeister: 22a

Ruspolia nitidula Scopoli: 22a; 22b

Tettigoniinae

Festella festae Giglio-Tos: 1b

A rare species. Recently reported from 3 localities in Jordan (KATBEH-BADER & MASSA 2001).

Gryllidae

Gryllinae

Acheta domesticus (Linnaeus): 25b

Gryllus bimaculatus DeGeer: 11; 13; 18a

Nemobiinae

Pteronemobius sp.: 2

Tetrigidae

Tetriginae

Paratettix meridionalis Rambur: 18a

Tetrix sp.: 22c

Pyrgomorphidae

Pyrgomorphinae

Chrotogonus homalodemus Blanchard: 15; 16; 18c; 22c; 22d; 22f; 24; 26; 27

Poecilocerus bufonius Klug: 10a; 10b; 10c; 12b; 12c

Pyrgomorpha conica-cognata group: 9; 12a; 12b; 16; 17; 18c; 21a; 21b; 22c; 22d; 25a; 25b; 27; 28; 29a; 29b

Pyrgomorphella granosa Stal: 1a; 1b; 1c; 3; 4; 9

Acrididae

Tropidopolinae

Tropidopola longicornis Fieber: 2; 19; 21d; 22b

Calliptaminae

Calliptamus barbarus palaestinensis Ramme: 1b; 3; 8

Catantopinae

Catantops axillaris axillaris Thunberg: 21a; 21b; 22a

Widespread throughout Africa. Recorded from Egypt only from Dakhla Oasis in UVAROV (1924, 1943), INNES BEY (1929) and JOHNSTON (1956, 1968) though not mentioned in Dirsh' revision of the genus (1956). Both localities mentioned here are new and the northernmost of Africa (N 28°-29°). This can be interpreted as relict populations from the time in which the Western Desert was still a savanna.

Pezotettix curvicerca Uvarov: 1a; 1b

Cyrtacanthacridinae

Anacridium aegyptium L.: 18a; 22f

Schistocerca gregaria Forskal: 10a; 18a

The species was collected at the outskirts of Cairo (loc. nr. 18a) which at the time (18-21 november 2004) was visited by a swarm of the species.

Eyprepocnemidinae

Eyprepocnemis plorans Charpentier: 1b; 14b; 22b; 22f; 23

Heteracris annulosa Walker: 6; 5; 7; 17; 18a; 18b; 18c 21a; 21b; 21c; 21d; 21e; 22a; 22b; 22c; 22e; 22f; 24; 25a; 25b; 25c; 31

Heteracris littoralis Rambur: 14a; 15; 23

Heteracris (*Paraeuprepocnemis*) *syriaca* Brunner (= ? *festae* Giglio Tos): 1c; 3; 8

Acridinae

Acrida bicolor pellucida (Klug): 1b

Though no subspecies of *A. bicolor* are recognized in DIRSH & UVAROV (1953),

JOHNSTON (1956; 1968) or OTTE (1995) in the last revision of the genus (DIRSH 1954) the Egyptian form *pellucida* is mentioned as a distinct subspecies.

Calephorus compressicornis Latreille: 14b; 18a; 18c; 21all; 22c; 24; 25all; 26; 29a; 29b; 30; 32

Duronella cooperi Uvarov: 21a; 21b; 21c; 21d; 22b

Up to now only known from its type locality the Siwa Oasis. Now also found at Bahariya Oasis.

Truxalis nasuta (Linnaeus): 21a; 21b

Only collected at the Siwa oases. The coloration of the hind wing in the females lacks any reddish pigment, the basal portion being entirely blue as reported by UVAROV (1943). Though the colour is a consistent and clear difference between the Siwa population and the other Mediterranean countries, Uvarov abstained from erecting a new taxon for the Siwa population, based on the overall agreement of the latter with other Mediterranean populations.

Truxalis grandis Klug: 2; 18c; 18d; 29b

Oedipodinae

Acrotylus insubricus inficitus Walker

Very common, almost found everywhere.

Aiolopus thalassinus Fabricius: 2; 14b; 18c; 18a; 21all; 22a; 22b; 22d; 22e; 25all (common)

Aiolopus strepens Latreille: 21all; 22b; 22c; 22d; 22e

Locusta migratoria Linnaeus: 18a; 18c

Oedipoda miniata miniata Pallas: 1b; 8

Oedipoda aurea Uvarov (= *O. a. jordanica* Steinmann?): 3; 8

Sphingonotus savignii Saussure: 18c

Sphingonotus sp.: 1a

Sphingonotus rubescens Walker: 20

Gomphocerinae

Dociostaurus jagoi Soltani: 8

Ochrilidia gracilis Krauss: 17; 18c; 22a; 22d; 23; 25c; 27; 30

Ochrilidia geniculata Bolivar: 17

Syntopic with *O. gracilis*!

Acknowledgements

I wish to express my gratitude to Fer Willemse, my grandfather, without whom this study would have been impossible. He introduced me to and guided me through the world of entomology. It was Fer who made me passionate about grasshoppers. He also helped me name the specimens, provided the literature, and guided me through the process of writing this article. Secondly, I would like to thank, my father, Manuel Willemse, who helped me collect, and the rest of my

family who spent many hours in the car waiting patiently while we were collecting. My uncle, Luc Willemse, helped and encouraged me. Also, Professor Ghabbour and Mrs. Asma Haggag of the University of Cairo both shared their knowledge about the Egyptian fauna with great pleasure and enthusiasm. Finally I like to thank all the people that accompanied us on our desert trips to many remote locations in the Western Desert.

Author
Joost Willemse
3048 - 3rd St. SW
Calgary, AB, T2S 1V1
Canada
E-mail: joost_willemse99@hotmail.com

References

- ABDEL-DAYEM, M.S., HAGGAG, A.A., EL-MOURS, A.A. & EL-HAWAGRY, M.A. (2005): A revision of the genus *Sphingonotus* Fieber (Acrididae, Orthoptera) from Egypt. – Journal of the Egyptian German Society of Zoology 47E: 1-37.
- CHOPARD, L. (1943): Orthoptéroïdes de l'Afrique du Nord. – Faune de l'empire français 1: 1-450.
- ÇIPLAK, B. (2000): Genus *Festella* (Orthoptera: Tettigoniidae) with description of *F. rammei* sp.n. – Entomological News 111: 299-306.
- DIRSH, V.M. (1951): Revision of the group Truxales (Orthoptera, Acrididae). – Eos (Tomo extraord., 1950): 119-248.
- DIRSH, V.M. (1956): Preliminary revision of the genus *Catantops* Schaum and review of the group Catantopini (Orthoptera, Acrididae). – Publicações Culturais Companhia di Diamantes de Angola (Diamang) 28: 1-151.
- DIRSH, V.M. (1958): Revision of the genus *Eyprepocnemis* Fieber, 1853 (Orthoptera: Acridoidea). – Proceedings Royal Entomological Society London (B) B 27: 33-45.
- DIRSH, V.M. (1965): The African Genera of Acridoidea. – London (Anti-Locust Research Centre) and Cambridge (University Press), 579pp.
- DIRSH, V.M. & UVAROV, B.P. (1953): Preliminary diagnoses of new genera and new synonymy in Acrididae. – Tijdschrift voor Entomologie 96: 231-237.
- GRUNSHAW, J.P. (1991): A revision of the grasshopper genus *Heteracris* (Orthoptera: Acrididae: Eyprepocnemidinae). – Natural Resources Institute Bulletin 38: i-iv, 1-106.
- HAGGAG, A.A. (2004): On the systematics of subfamily Oedipodinae (Orthoptera, Acrididae) from Egypt. – Cairo University, thesis.
- HOLLIS, D. (1968): A revision of the genus *Aiolopus* Fieber (Orthoptera: Acrididae). – Bulletin of the British Museum Natural History (Entomology) 22: 307-355.
- INNES BEY, W. (1929): Révision des Orthoptères de l'Egypte 2me partie. Acridiens. – Mem. Soc. Entomol. Egypte 3 (2): 5-176, pls 1-7.
- JAGO, N.D. (1963): A revision of the genus *Calliptamus* Serville (Orthoptera: Acrididae). – Bulletin of the British Museum of Natural History (Entomology) 13: 289-350.
- JAGO, N.D. (1977): Revision of the genus *Ochrilidia* Stål, 1873, with comments on the genera *Sporobolius* Uvarov, 1941 and *Platypternodes* I. Bolívar, 1908 (Orthoptera, Acrididae, Gomphocerinae). – Acrida 6:163-217.

- JOHNSTON, H.B. (1956): Annotated catalogue of African grasshoppers. – Cambridge University Press, 833pp.
- JOHNSTON, H.B. (1968): Annotated catalogue of African grasshoppers. Supplement. – Cambridge University Press, 445pp.
- KATBEH-BADER, A. (2001): Acridoidae [Acridoidea] (Orthoptera) of Jordan. – Zoology in the Middle East 23: 89-100.
- KATBEH-BADER, A. & MASSA, B. (2001): Tettigoniidae (Orthoptera) from Jordan with description of new species and redescription of less known species. – Journal of Orthoptera Research 10 (1): 25-37.
- KEVAN, D.K.McE. (1959): A study of the genus *Chrotogonus* Audinet-Serville 1839 (Orthoptera, Acridoidea, Pyrgomorphidae). V. A revisional monograph of the Chrotogonini. VI. The history and biogeography of the Chrotogonini. – Publicações Culturais Companhia de Diamantes de Angola (Diamang) 43: 1-200, 201-246.
- KLUG, J.C.F. (1830-1832 [1829-1845]): Symbolae physicae seu icones et descriptiones Insectorum, quae ex itinere per Africam borealem et Asiam occidentalem Friderici Guilelmi Hemprich et Christiani Godofredi Ehrenberg medicinae et chirurgiae doctorum studio novae aut illustratae redierunt. – In: HEMPRICH, F.G. & EHRENBURG, C.H.: Symbolae Physicae Zool. 2 (Insect. 3): Decas prima, fol. a-i, pls 1-10 [no Orthoptera] (1829); Decas secunda, fol. a-f, pls. 11-20 (1830); Decas tertia, fol. a-l, pls. 21-30 (1832); Berlin.
- LA GRECA, M. (1964): Le *Tropidopola* (Orthoptera, Catantopidae) italiane con osservazioni sulla specie presenti nella regione mediterranea. – Annuario dell'Istituto e Museo di Zoologia dell'Università di Napoli 16: 1-21.
- MISHCHENKO, L.L. (1987 (org. 1986)): On the knowledge of grasshoppers of the genus *Ochrilidia* Stål (Orthoptera, Acrididae). – Entomological Review 65: 69-78; [English translation of Russian original in Entomologicheskoe Obozrenie 65: 709-718].
- OTTE, D. (1995): Orthoptera species file 5. – Philadelphia, Orthopterists' Society, 6 + 630pp.
- POPOV, G.B. & KEVAN, D.K.McE. (1979): A revision of the genus *Poekilocerus* Audinet-Serville 1831 (Orthoptera: Acridoidea: Pyrgomorphidae). – Anti-Locust Bulletin 51: 1-81.
- RAGGE, D.R. (1960): Further notes on the genus *Phaneroptera* Serville, with a revised key to the species (Orthoptera: Tettigoniidae). – Proceedings of the Zoological Society of London 134: 237-250.
- RAGGE, D.R. (1964): A revision of the genus *Tylopsis* Fieber (Orthoptera: Tettigoniidae). – Bulletin of the British Museum of Natural History (Entomology) 15: 297-322.
- SOLTANI, A.A. (1978): Preliminary synonymy and description of new sp. in the genus *Dociostaurus*, with a key to the species in the genus. – Journal of the Entomological Society of Iran, Supplement 2: 93 pp.
- UVAROV, B.P. (1924): Some new and interesting Orthoptera in the collection of the Ministry of Agriculture, Cairo. – Bulletin of the Ministry of Agriculture, Egypt, Technical and Scientific Service 41: 1-41, pls 1-3.; Cairo.
- UVAROV, B.P. (1943): A preliminary revision of the *axillaris*-group of the genus *Catantops* Schaum, 1853 (Orthoptera, Acrididae). – Annals and Magazine of Natural History (11) 10: 119-128; London.
- UVAROV, B.P., (1943); Orthoptera of the Siwa oases. – Proceedings of the Linnean Society of London 155 (1942-1943), 1: 8-30.